

## **REMARKS/ARGUMENTS**

Claims 1-34 remain in this application. Claims 8-9 are amended herein.

### **1. Claim Objections**

Claims 8-10 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Claims 8 and 9 have been amended to comport with the limitation added to claim 1 in the previous amendment. Accordingly, claims 8-10 now further limit the previous claims. Respectfully, as such, the objection of claims 8-10 is now overcome and should be withdrawn.

### **2. Claim Rejections Under 35 USC §103**

Claims 23, 24 and 30-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merkel (US 6,087,281) in view of Beall at al. (U.S. Patent Application Publication 2002/0004445 A1) or Published International Application WO 01/91882 A1.

Respectfully, the rejection is traversed. Merkel and Beall are not properly combinable. First, a person of ordinary skill in the art would not look to Merkel US 6,087,281 as a basis for further modification because it is directed to a composition useful for thin-walled honeycomb substrate applications (generally less than 5 mils – see Col. 4), such as catalytic converters. The large amounts of small pores (between 0.5 and 5 microns) make it unattractive for washcoated particulate filters in that such small pores may become blocked when washcoated.

Further, contrary to Examiners statement, both Merkel and Beall teach the use of “talc” as the Mg-O forming source. No examples of the use of MgO are provided in Merkel or Beall. For example, Merkel teaches that fine talc should be used to achieve the large amounts of fine pores (see Col. 2, line 49-51). Similarly, Beall WO 01/91882 A1 teaches the raw materials include one or more talc sources (page 10, lines 3-4) and on page 10, line 19-21 that the talc must have an average median particle size of greater than about 15 micrometers. Talc is a “hydrous magnesium silicate.” Examiner is correct to point out that MgO is listed in the Raw Material Table A in Beall. However, its use is not discussed at all. No examples are given either using or contemplating the use of MgO. If nothing else, the Beall reference teaches away from the use of MgO. It is well settled that the showing of combinability must be “clear and particular.” In re Dembiczak, 175 F.3d at 999, 50 USPQ2d at 1617. The listing of MgO in a Raw Material Table without some suggestion of how or when it should be used, does not meet the criteria of a “clear and particular” teaching or suggestion.

Contrarily, the present invention in claim 23 claims “magnesium oxide” as the Mg-O forming source. Magnesium oxide is useful in the present invention for achieving a desirable pore size distribution in which  $d_{50}/(d_{50}+d_{90})$  is less than 0.70; the soot loaded permeability factor  $S_f$ , as defined by the equation  $[d_{50}/(d_{50}+d_{90})]/[\%porosity/100]$ , is less than 1.55; and the coefficient of thermal expansion (25-800°C) is no greater than  $17 \times 10^{-7}/^{\circ}\text{C}$ . There is no requisite suggestion in either Merkel or Beall which suggests that if MgO is used, the desirable properties claimed will result.

Thus, contrary to Examiner’s assertion, a person of ordinary skill would not arrive at the invention of claim 23 from the combination of Merkel and Beall. The rejection of claims 25-29 under 35 U.S.C. 103(a) are equally flawed for the above reasons. Hamaguchi US 5,185,110, which teaches the use of talc or calcined talc does nothing to rectify the

deficiencies of the basic combination. Accordingly, the rejection of claims 23-34 is improper and should be withdrawn.

**3. Allowable Subject Matter**

Claims 8-10 would be allowable if rewritten or amended to overcome the objections set forth. Claims 8-9 have been amended herein to address this issue.

Claims 1-7 and 11-22 are allowed. Examiner is thanked for the indication of allowable subject matter. Accordingly, it is now believed that claims 1-22 are allowable.

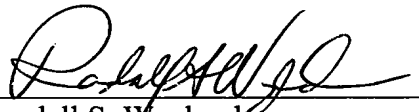
**4. Conclusion**

Based upon the above amendments, remarks, and papers of records, Applicants believe the pending claims of the above-captioned application are in allowable form and patentable over the prior art of record. Applicants respectfully request that a timely Notice of Allowance be issued in this case.

Applicants believe that a **one (1) month extension of time** is necessary to make this Reply timely. Should Applicants be in error, Applicants respectfully request that the Office grant such time extension pursuant to 37 C.F.R. § 1.136(a) as necessary to make this Reply timely, and hereby authorizes the Office to charge any necessary fee or surcharge with respect to said time extension to the deposit account of the undersigned firm of attorneys, Deposit Account 03-3325.

Please direct any questions or comments to Randall S. Wayland at 607-974-0463.

Respectfully submitted,



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